

AMENDMENTS TO THE CLAIMS

Claim 1. (Canceled).

2. (Currently Amended) The polynucleotide according to claim 7 produced by the process of cloning, wherein using as a primer a nucleotide sequence encoding the amino acid sequence of SEQ ID NO: 21 is used as a primer.

3. (Previously Presented) The polynucleotide according to claim 2 wherein said primer has the nucleotide sequence of SEQ ID NO: 22.

4. (Canceled).

5. (Currently Amended) The polynucleotide according to claim 7 encoding a protein, which polynucleotide hybridizes with a nucleotide sequence encoding the amino acid sequence of SEQ ID NO: 21 or all of the nucleotide sequence encoding any of the amino acid sequences of SEQ ID NOs: ~~1 to 6~~ 32 to 37 under the condition of 5 x SSC and 50°C, ~~and which protein transfers an aromatic acyl group to flavonoid.~~

6. (Currently Amended) The polynucleotide according to claim 7 encoding a protein, which polynucleotide hybridizes with a nucleotide sequence encoding the amino acid sequence of SEQ ID NO: 21 or all of the nucleotide sequence encoding any of the amino acid sequences of SEQ ID NOs: ~~1 to 6~~ 32 to 37 under the condition of 2 x SSC and 50°C ~~and which protein transfers an aromatic acyl group to flavonoid.~~

7. (Currently Amended) An isolated polynucleotide encoding an anthocyanin acyltransferase, ~~encoding a protein which consists of an amino acid sequence~~ which is at least 30% homologous to any one of the amino acid sequences of SEQ ID NOs: ~~1 to 6~~ 32 to 37, and which transfers ~~an aromatic acyl group to flavonoid wherein said acyltransferase transfers~~ an aromatic acyl group to the glucose of the 3 or 5 position of anthocyanin.

8. (Currently Amended) The polynucleotide according to claim ~~[[1]]~~ 7 encoding a protein which has an amino acid sequence having a homology of at least 69% with any of the amino acid sequences of SEQ ID NOs: ~~1 to 6~~ 32 to 37, ~~and which transfers an aromatic acyl group to flavonoid.~~

9. (Previously Presented) A vector comprising the polynucleotide according to claim 7.

10. (Previously Presented) A host cell transformed with the vector according to claim 9.

11. (Currently Amended) The host cell according to claim 10 wherein said host cell is a microbial cell or an animal cell.

12. (Currently Amended) The host cell according to claim 10 wherein said host cell is a plant cell ~~or a plant body~~.

Claims 13. – 19. (Canceled)

20. (Previously Presented) A method for acylating a pigment in a plant, comprising introducing a polynucleotide according to claim 7 into the plant, whereby said polynucleotide expresses a protein, and said protein acylates the pigment in the plant.

Claim 21. (Canceled)

22. (Previously Presented) A method for stabilizing a pigment in a plant, comprising introducing the polynucleotide according to claim 7 into a plant, whereby said polynucleotide expresses a protein, and said protein acylates the pigment in the plant, which acylation stabilizes said pigment in the plant.

23. (Previously Presented) A method for altering the color of flowers, comprising introducing the polynucleotide according to claim 7 into a plant, whereby said polynucleotide expresses a protein, and said protein acylates the pigment in the plant, which acylation alters the color of flowers of said plant.

24. (Previously Presented) The method according to claim 20 wherein the pigment is anthocyanin.

25. (Previously Presented) A plant, a progeny, or tissue of said plant or said progeny, whose color has been altered by introducing therein the polynucleotide according to claim 1.

Claim 26. (Canceled)

27. (Previously Presented) A cut flower of the plant or the plant's progeny according to claim 25.

28. (Currently Amended) An isolated polynucleotide encoding an anthocyanin acyltransferase, which polynucleotide encodes an amino acid sequence selected from the group consisting of the amino acid sequences as set forth in SEQ ID NOs: ~~1 to 6~~ 32 to 37, or hybridizes with a nucleotide sequence complementary to a nucleotide sequence selected from the group consisting of the nucleotide sequences encoding the amino acid sequences as set forth in SEQ ID NOs: ~~1 to 6~~ 32 to 37 under the condition of 5 x SSC and 50°C or the condition of 2 x SSC and 50°C, and which anthocyanin acyltransferase transfers an aromatic acyl group to a flavonoid.

29. (Previously Presented) A vector comprising the polynucleotide according to claim 28.

30. (Previously Presented) A host cell transformed with the vector according to claim 29.

31. (Currently Amended) The host cell according to claim 30 wherein said host cell is a microbial cell or an animal cell.

32. (Currently Amended) The host cell according to claim 30 wherein said host cell is a plant cell ~~or a plant body~~.

33. (Previously Presented) A method for acylating a pigment in a plant, comprising introducing the polynucleotide according to claim 28 into the plant, whereby said polynucleotide expresses a protein, and said protein acylates the pigment in the plant.

34. (Previously Presented) A method for stabilizing a pigment in a plant, comprising introducing the polynucleotide according to claim 28 into a plant, whereby said polynucleotide expresses a protein, and said protein acylates the pigment in the plant, which acylation stabilizes said pigment in the plant.

35. (Previously Presented) A method for altering the color of flowers, comprising introducing the polynucleotide according to claim 28 into a plant, whereby said polynucleotide expresses a protein, and said protein acylates the pigment in the plant, which alters the color of flowers of said plant.

36. (Previously Presented) A plant, a progeny or tissues thereof, each of whose color has been altered by introducing therein the polynucleotide according to claim 28.

37. (Currently Amended) A flower comprising the tissues ~~The plant tissue~~ according to claim 36 ~~wherein said tissue is a flower.~~

38. (Currently Amended) A cut flower of the plant according to claim 36 or its progeny, ~~having the same property~~ wherein the color of said flower's has been altered by introducing said polynucleotide into said plant.

39. (Previously Presented) The method according to claim 33, wherein the pigment is anthocyanin.

40. (Previously Presented) The method according to claim 34, wherein the pigment is anthocyanin.

41. (Previously Presented) The method according to claim 35, wherein the pigment is anthocyanin.

Claims 42. – 53. (Canceled).

54. (Currently Amended) An isolated polynucleotide encoding an anthocyanin acyltransferase, which polynucleotide encodes an amino acid sequence selected from the group consisting of the amino acid sequences as set forth in SEQ ID NOS: ~~1 to 6~~ 32 to 37.

55. (Previously Presented) A vector comprising the polynucleotide according to claim 54.

56. (Previously Presented) A host cell transformed with the vector according to claim 55.

57. (Currently Amended) The host cell according to claim 56, wherein said host cell is a microbial cell or an animal cell.

58. (Previously Presented) The host cell according to claim 56, wherein said host cell is a plant cell.

59. (Previously Presented) A method for acylating a pigment in a plant, comprising introducing the polynucleotide according to claim 54 into a plant, whereby said polynucleotide expresses a protein, and said protein acylates the pigment in the plant, which alters the color of flowers of said plant.

60. (Previously Presented) A method for stabilizing a pigment in a plant, comprising introducing the polynucleotide according to claim 54 into a plant, whereby said polynucleotide expresses a protein, and said protein acylates the pigment in the plant, which stabilizes the pigment of said plant

61. (Previously Presented) A method for altering the color of flowers, comprising introducing the polynucleotide according to claim 54 into a plant, whereby said polynucleotide expresses a protein, and said protein acylates the pigment in the plant, which alters the color of flowers of said plant.

62. (Previously Presented) A plant, its progeny, or tissue of said plant or said progeny, wherein its color has been controlled by introducing therein the polynucleotide according to claim 54.

Claim 63. (Canceled).

64. (Currently Amended) A cut flower of the plant, its progeny, or tissue of said plant or said progeny according to claim 62, wherein the color of said flower has been controlled by introducing said polynucleotide into said plant.

65. (Previously Presented) The method according to claim 60, wherein the pigment is anthocyanin.

66. (Previously Presented) The method according to claim 61, wherein the pigment is anthocyanin.

67. (Previously Presented) The host cell according to claim 56, wherein said host cell is a plant cell in a plant.

68. (New) An isolated polynucleotide encoding an anthocyanin acyltransferase, which polynucleotide encodes an amino acid sequence selected from the group consisting of the amino acid sequences set forth in SEQ ID NOS: 32 to 37, or hybridizes with a nucleotide sequence complementary to a nucleotide sequence selected from the group consisting of the nucleotide sequences encoding the amino acid sequences as set forth in SEQ ID NOS: 32 to 37 under the condition of 5 X SSC and 50°C or the condition of 2 X SSC and 50°C, and which anthocyanin acyltransferase transfers an aromatic acyl group to the glucose of the 3 or 5 position of anthocyanin.